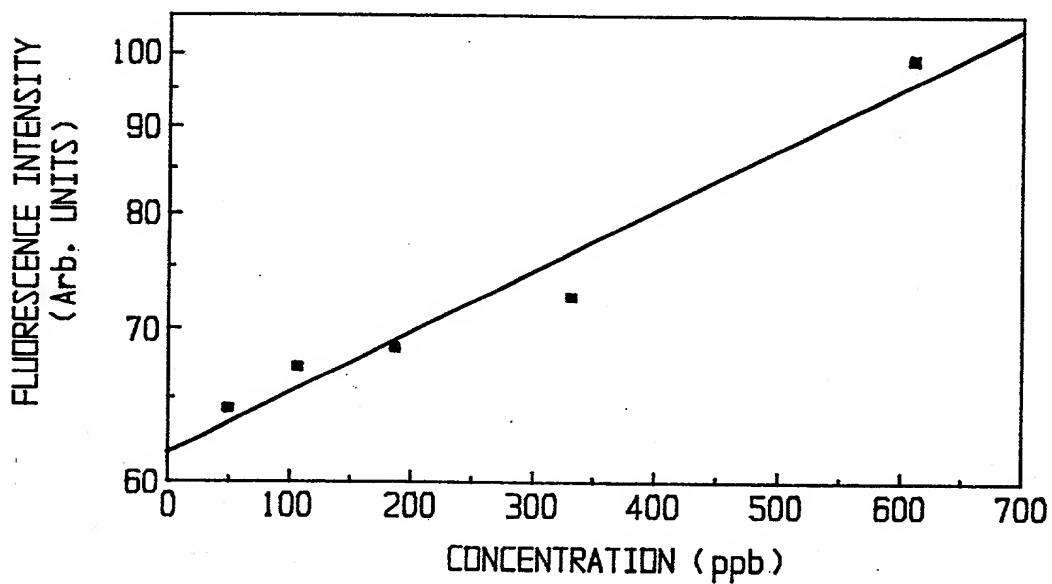
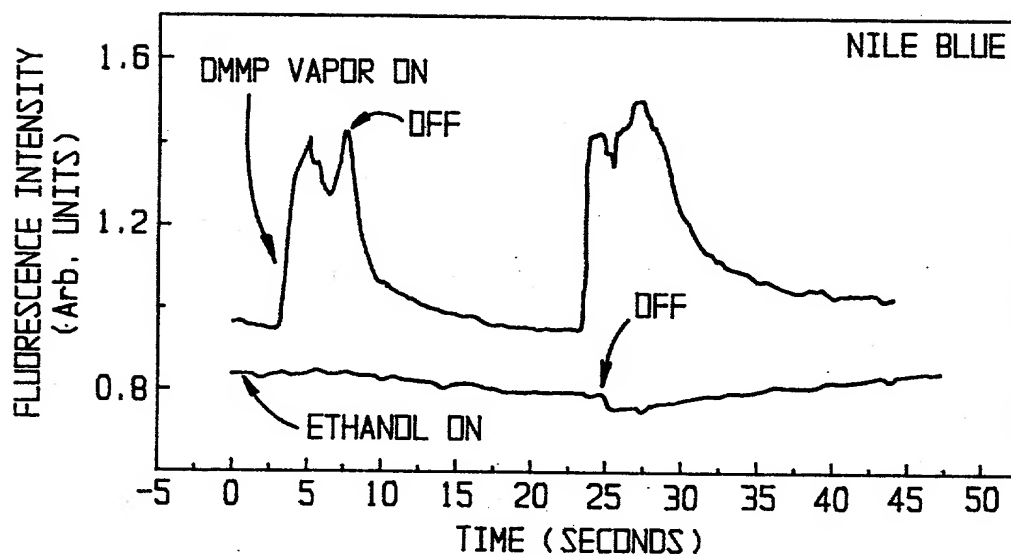
**FIG. 1**

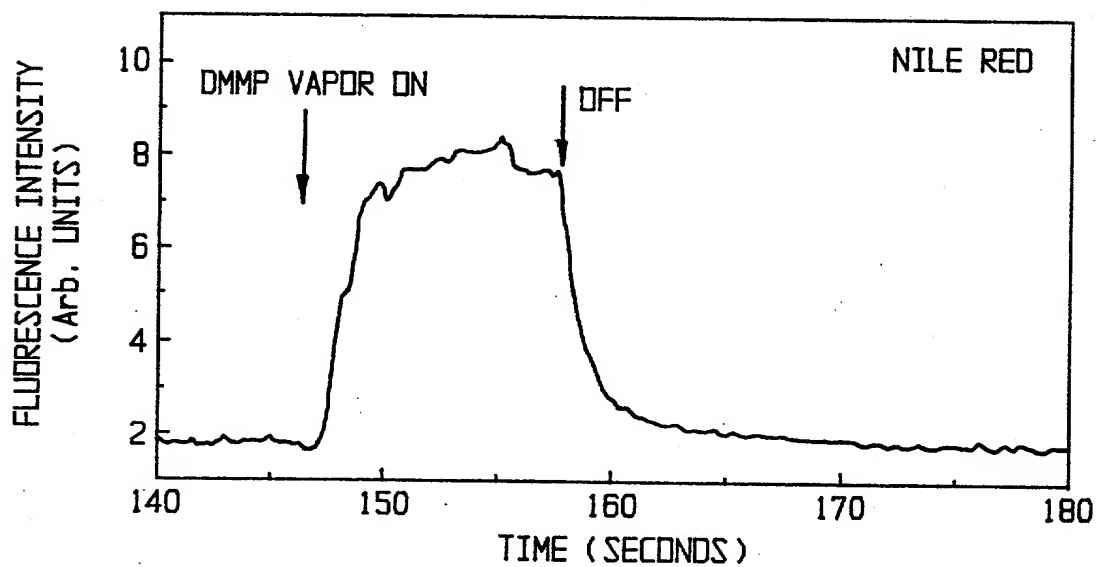
EMISSION SPECTRA OF NAFION THIN FILM CONTAINING DIIC(5) BEFORE AND AFTER EXPOSURE TO DMMP VAPOR

**FIG. 2**

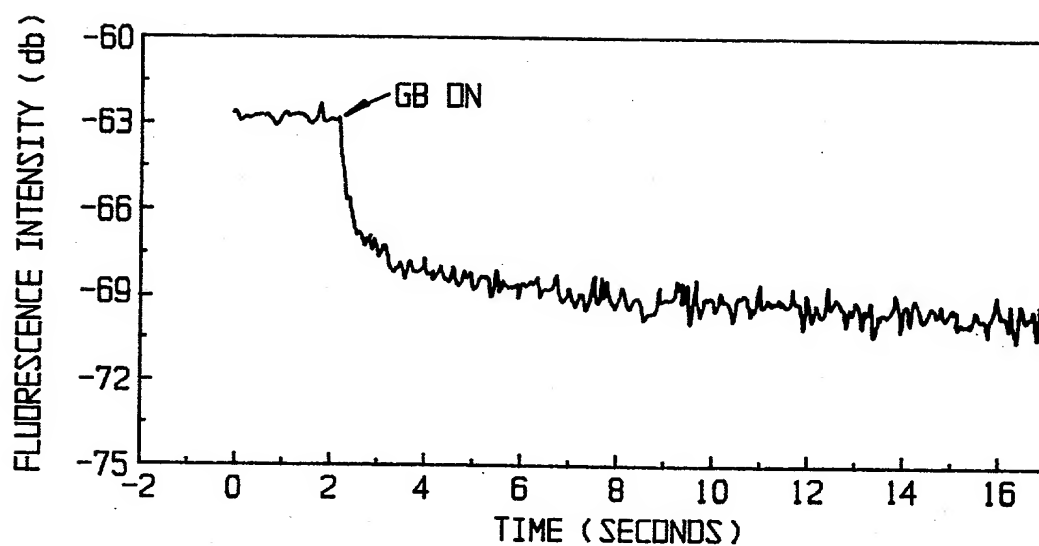
SENSITIVITY AND PROPORTIONALITY OF NAFION/DIIC(5) PROBE TO DMMP

**FIG. 3**

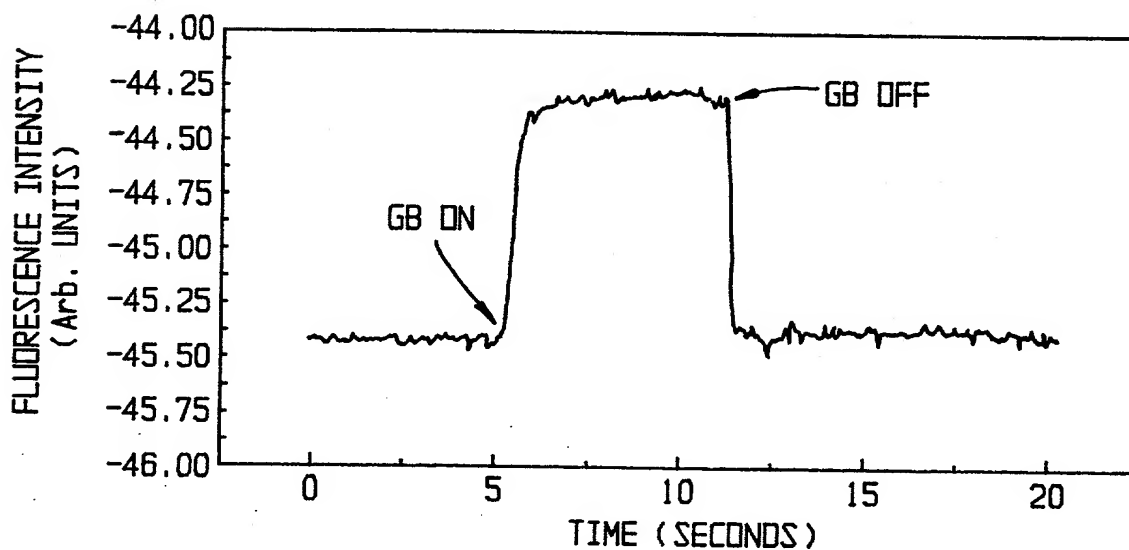
RESPONSE OF NILE BLUE DOPED
POLYETHYLENE MALEATE FILM TO DMMP

**FIG. 4**

RESPONSE OF NILE RED DOPED
POLYETHYLENE MALEATE FILM TO DMMP

**FIG. 5**

CHANGE OF FLUORESCENCE OF DIIC(5) IN NAFION
UPON EXPOSURE TO SARIN AT 0.0099mg/m³

**FIG. 6**

CHANGE OF FLUORESCENCE INTENSITY WHEN
THE FILM WAS EXPOSED TO SARIN

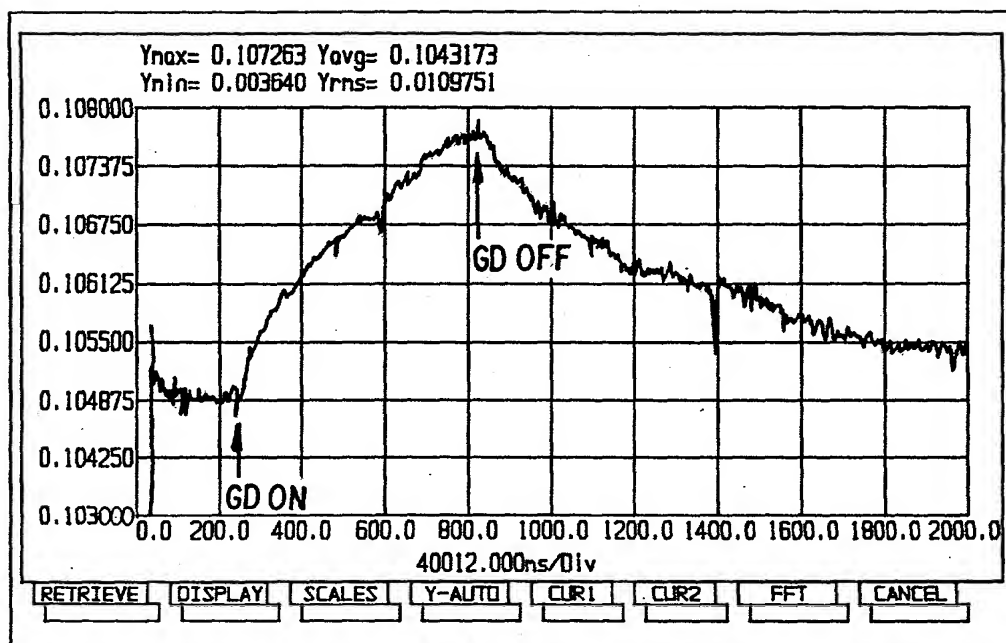


FIG. 7 RESPONSE OF AN OXAZINE 170/FLUOROPOLYOL FILM TO GD AT 520 ppb

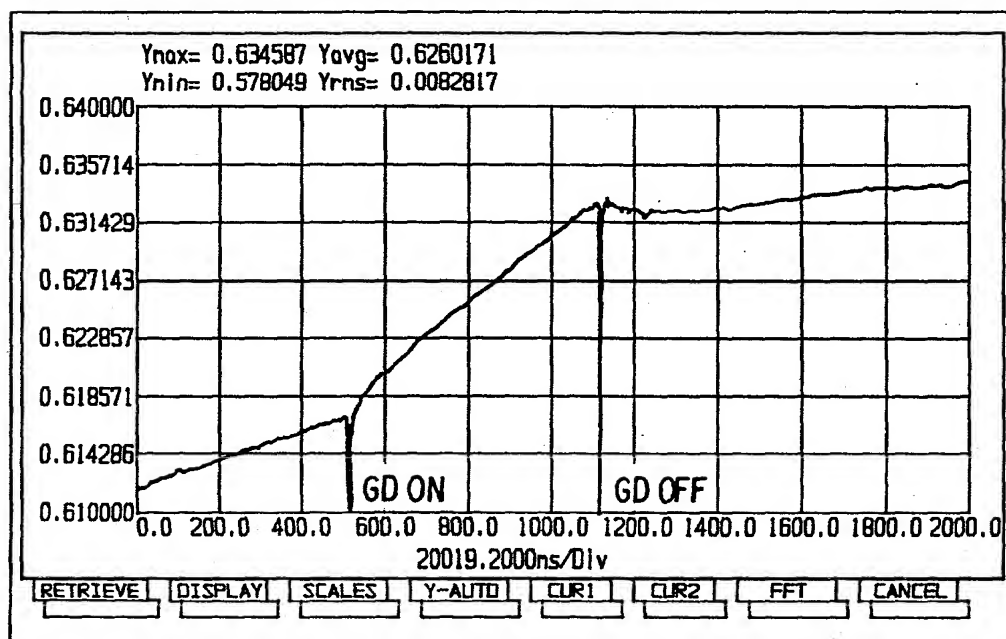


FIG. 8 RESPONSE OF AN OXAZINE 170/FLUOROPOLYOL FILM TO GD AT 41 ppb

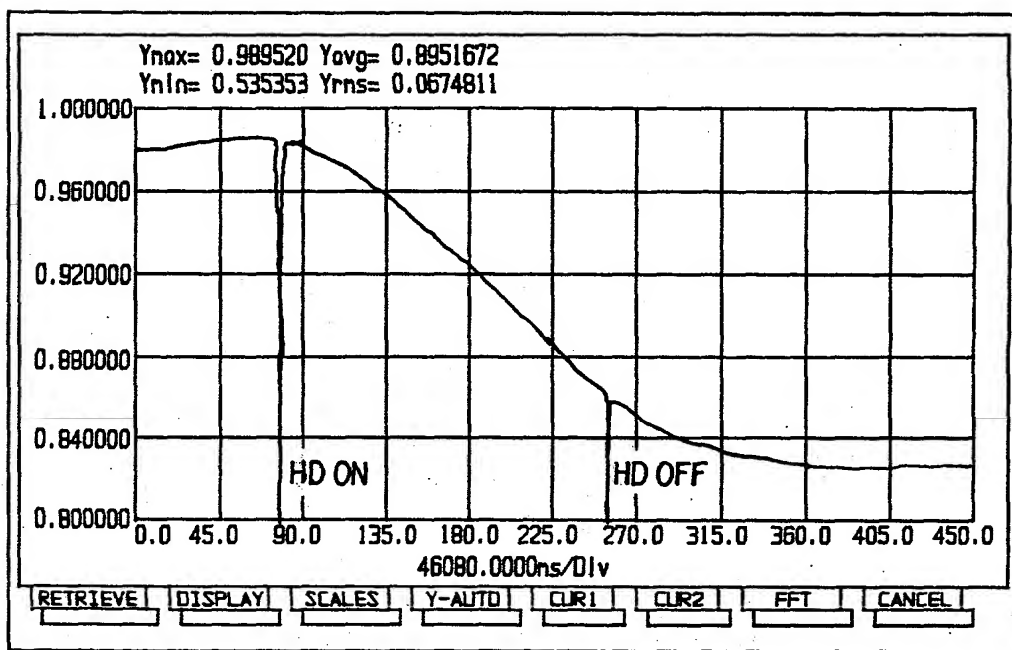


FIG. 9A RESPONSE OF NILE BLUE/PECH FILM TO HD
AT 350 ppb ON 27 FEB 97

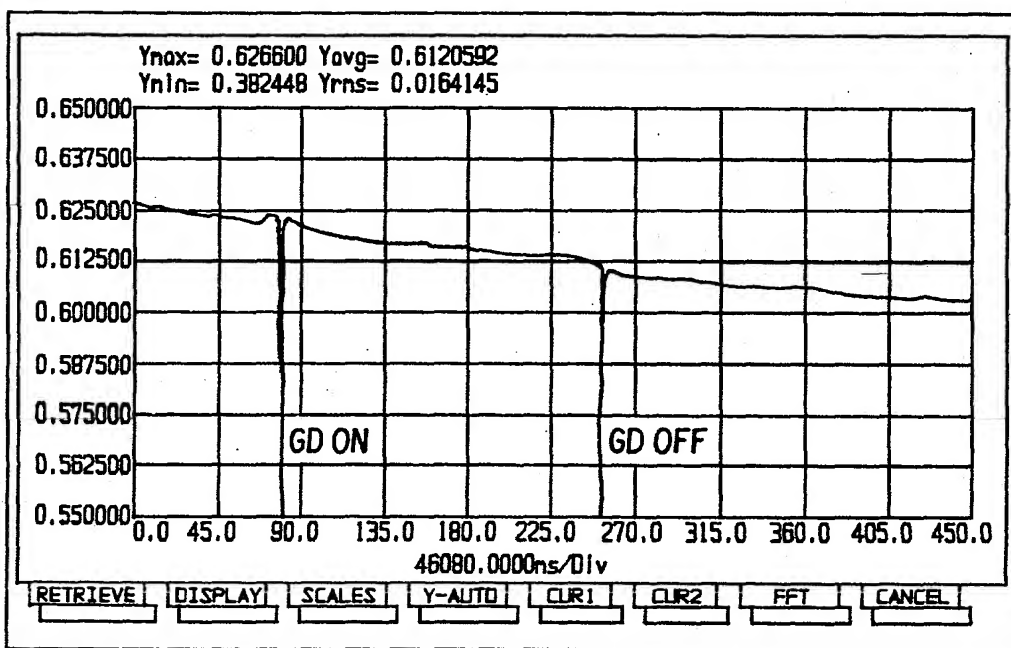


FIG. 9B NULL RESPONSE OF NILE BLUE/PECH FILM OF
FIGHER 5a UPON EXPOSURE TO GD AT 166 ppb

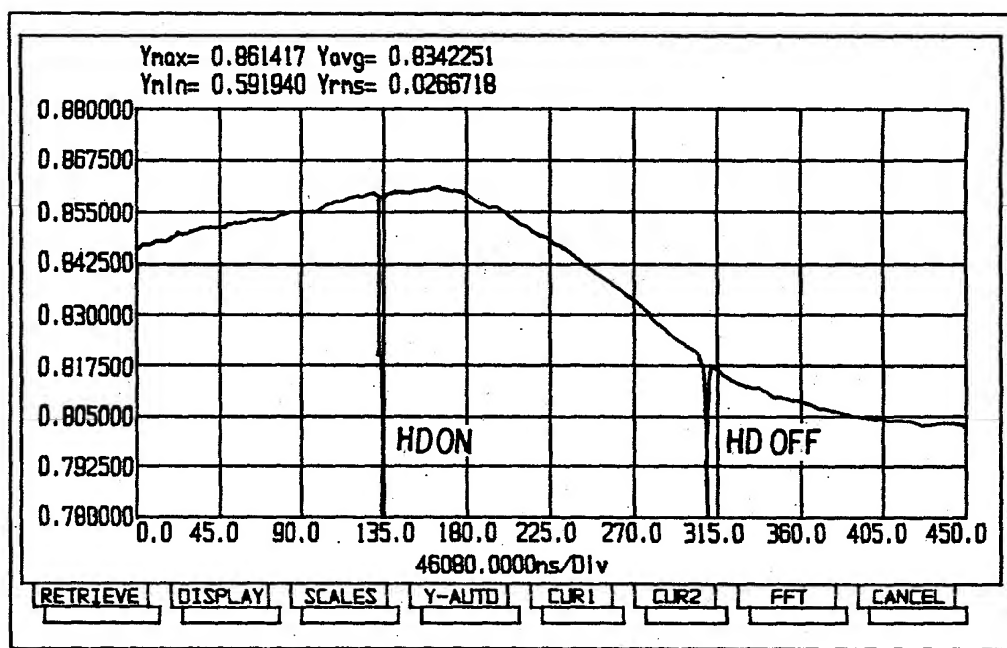


FIG. 9C RESPONSE OF SAME NILE BLUE/PECH FILM, AFTER EXPOSURE TO GD (AT 166 ppb) UPON RE-EXPOSURE TO HD (AT 243 ppb)

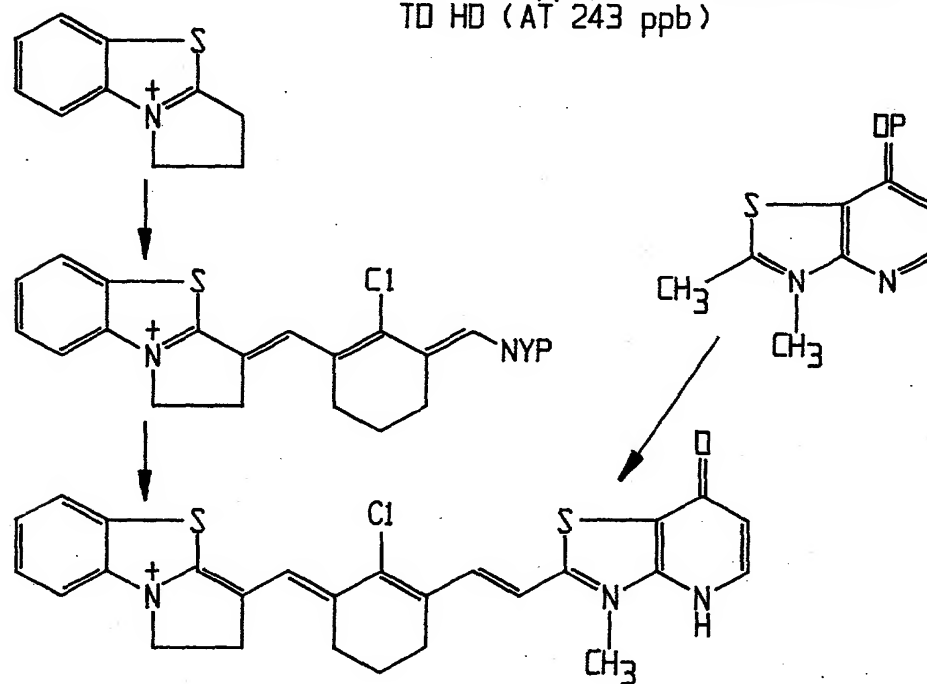


FIG. 10

(SCHEME 1) SYNTHESIS OF NEAR-INFRARED EXCITED SOLVATOCHROMIC FLOUROPHORE

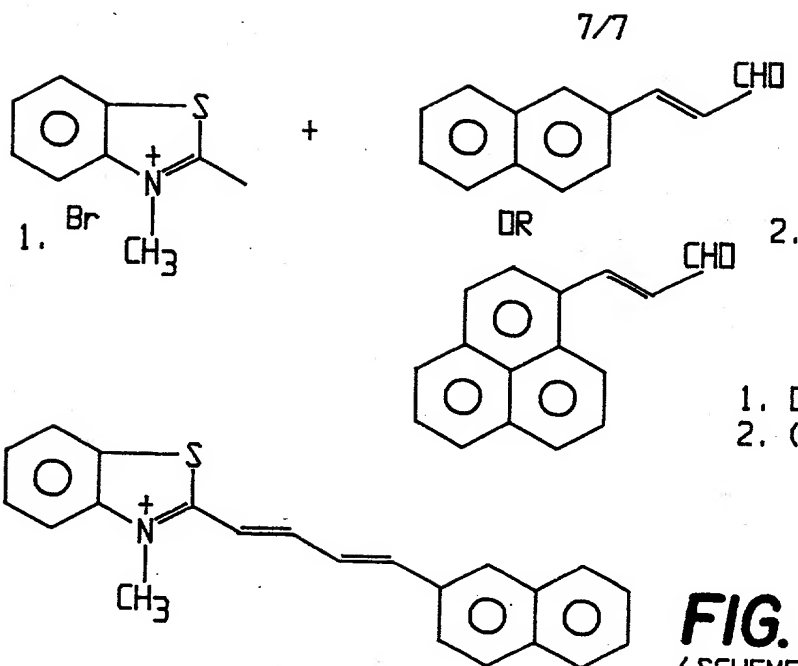


FIG. 11
(SCHEME II) SYNTHESIS OF ARYL
NEAR-INFRARED EXCITED
SOLVTOCHROMIC FLUDROPHORE

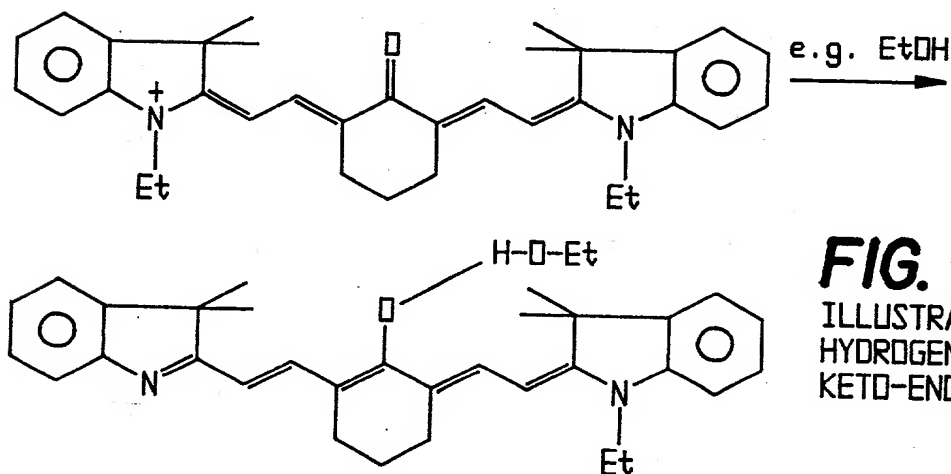


FIG. 12
ILLUSTRATION OF
HYDROGEN BONDING TO
KETO-ENOL STRUCTURES

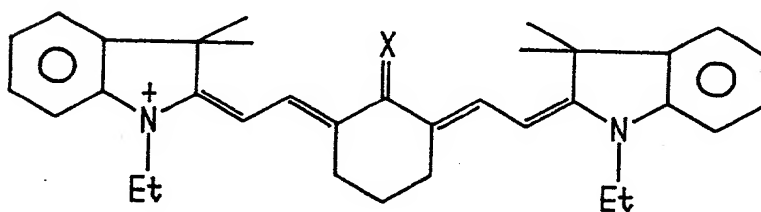


FIG. 13

X = S, NH, ETC.